CLAIMS

What is claimed is:

1. Apparatus comprising:

(a) a frame; and

(b) a plurality of character assemblies that each include:

(1) a substrate configured to fit in the frame; and

(2) a section of refrigerant conduit coupled to the substrate and having one or more thermally conductive segments arranged along a first side of the substrate to form the shape of a character;

(3) wherein the section of refrigerant conduit has a plurality of terminations extending from a second side of the substrate.

2. The apparatus of claim 1 further comprising, for each section of refrigerant conduit, a connector coupled to one of the terminations of the section.

3. The apparatus of claim 1 wherein, for each section of refrigerant conduit, the character is a letter of the alphabet.

4. The apparatus of claim 1 wherein the frame and the substrate of each one of the character assemblies are comprised of UHMW polyethylene.

5. The apparatus of claim 1 further comprising, for each section of refrigerant conduit, an inlet connector and an outlet connector connected to the section.

6. The apparatus of claim 1 further comprising:

(a) a tank containing a quantity of refrigerant; and

(b) a manifold fluidly coupled to the tank and having a plurality of outlets;

(c) wherein each of the manifold outlets is fluidly coupled to one of the terminations of a respective one of the character assemblies.

7. The apparatus of claim 6 wherein the manifold is supported by the frame.

8. The apparatus of claim 6 further comprising, for each section of refrigerant conduit:

(a) a hose extending to the section from the manifold; and

(b) a connector coupled to the hose and to one of the terminations of the section.

9. The apparatus of claim 8 wherein:

(a) the manifold is supported by the frame;

(b) the frame and the block of each one of the character assemblies are comprised of UHMW polyethylene; and

(c) the section of refrigerant conduit of each one of the character assemblies is comprised of copper tubing.

10. A method for freeze branding livestock, comprising:

(a) causing refrigerant to flow through a first thermally conductive conduit having exposed, coplanar segments that are arranged in the shape of a set of characters;

(b) then applying the segments to brand a specimen of livestock;

(c) then stopping the flow of refrigerant;

(d) then replacing the conduit with a second thermally conductive conduit having exposed, coplanar segments that form a different set of characters and causing refrigerant to flow through the second conduit; and

(e) applying the segments of the second conduit to brand a second specimen of livestock.

11. The method of claim 10 further comprising repeating parts (c) through (e) a number of additional times, each time replacing the conduit with a second conduit having exposed, coplanar segments that form a unique set of characters and applying the segments to individually brand a single specimen of livestock.

12. The method of claim 10 wherein the character shapes formed are letters of the alphabet.

13. The method of claim 10 further comprising, in part (a), supporting a first plurality of character assemblies by a frame, wherein each one of the first plurality of assemblies includes one or more of the exposed, coplanar segments of the first thermally conductive conduit and, in part (d), supporting a second plurality of character assemblies by the frame, wherein each one of the second plurality of assemblies includes one or more of the exposed, coplanar segments of the second thermally conductive conduit.

14. The apparatus of claim 13 wherein the frame is comprised of UHMW polyethylene and each one of the character assemblies includes a block comprised of UHMW polyethylene.

15. Apparatus comprising:

(a) a frame; and

(b) a plurality of character assemblies that each include:

(1) a substrate configured to fit in the frame;

(2) a section of refrigerant conduit coupled to the substrate and having one or more thermally conductive segments arranged along a first side of the substrate to form the shape of a character; and

(3) a plurality of springs elastically coupling the section of refrigerant conduit to the substrate.

16. The apparatus of claim 15 wherein the conduit has a square cross section.

17. The apparatus of claim 15 wherein, for each section of refrigerant conduit, the character is a numeral digit.

18. The apparatus of claim 15 wherein the frame and the substrate of each one of the character assemblies are comprised of UHMW polyethylene.

19. The apparatus of claim 15 wherein the section of refrigerant conduit has a plurality of terminations extending from a second side of the substrate.

20. The apparatus of claim 19 further comprising, for each section of refrigerant conduit, an inlet connector and an outlet connector connected to the section.

21. The apparatus of claim 19 further comprising:

(a) a tank containing a quantity of refrigerant; and

(b) a manifold fluidly coupled to the tank and having a plurality of outlets;

(c) wherein each of the manifold outlets is fluidly coupled to one of the terminations of a respective one of the character assemblies.

22. The apparatus of claim 21 wherein the manifold is supported by the frame.

23. The apparatus of claim 21 further comprising, for each section of refrigerant conduit:

(a) a hose extending to the section from the manifold; and

(b) a connector coupled to the hose and to one of the terminations of the section.